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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 1 of 4

**Complete if Known**

Application Number	10/750,623
Filing Date	December 31, 2003
First Named Inventor	Sue K. DeNise
Art Unit	1637
Examiner Name	David C. Thomas
Attorney Docket Number	MMI-0103 (14972.105005)

**U.S. PATENT DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code <sup>2</sup> (if known)			
	AA	US-6,103,446	08/15/2000		
	AB	US- 2003/0129609 A1	07/10/2003		
	AC	US- 2003/0104424 A1	06/05/2003		
	AD	US- 2003/0190644 A1	10/09/2003		
	AE	US- 6,218,119	04/17/2001		
	AF	US- 2002/0123058 A1	09/05/2002		
	AG	US- 2002/0137139 A1	09/26/2002		
	AH	US- 2002/0137160 A1	09/26/2002		
	AI	US- 2002/0119442 A1	08/29/2002		
	AJ	US- 2002/0107211 A1	08/08/2002		
	AK	US- 6,458,531	10/01/2002		
	AL	US- 6,701,869	03/09/2004		
	AM	US- 2003/0219819 A1	11/27/2003		
	AN	US- 6,383,751 B1	05/07/2002		
	AO	US- 5,582,987	12/10/1996		
		US-			
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**FOREIGN PATENT DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)				
	AP	WO02/076190 A2	10/03/2002			
	AQ	WO02/09510 A2	07/02/2002			
	AR	WO02/072871 A2	09/19/2002			
	AS	WO01/21801 A1	03/29/2001			
	AT	WO02/40709 A2	05/23/2002			
	AU	WO02/059374 A1	08/01/2002			

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		Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)				
	BA	WO04/013346 A2	02/12/2004			
	BB	WO02/064749 A2	08/22/2002			

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Sheet 3 of 4

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Application Number	10/750,623
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First Named Inventor	Sue K. DeNise
Art Unit	1637
Examiner Name	David C. Thomas
Attorney Docket Number	MMI-0103 (14972.105005)

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	CA	ZHANG, H.M., et al., "Rapid Communication: A Novel DNA Polymorphism of the Bovine Calpain Gene Detected by PCR-RFLP Analysis"; J. Anim. Sci. 1996; 74:1441	
	CB	DAVIS, G.P., et al., "The Impact of Genetic Markers on Selection", J. Anim. Sci. 1998, 76:2331-2339	
	CC	DENISE, S.K., et al., "Genetic Parameter Estimates for Postweaning Traits of Beef Cattle in a Stressful Environment", J. Anim. Sci. 1989, 67:2619-2626	
	CD	DU, F.X., et al., "Heterozygosity for Genes Influencing a Quantitative Trait", J. Anim. Sci. 2002, 80:1478-1488	
	CE	UNANIAN, M.M., et al., "Rapid Communication: Polymerase Chain Reaction-Restriction Fragment Length Polymorphism in the Bovine Growth Hormone Gene", J. Anim. Sci. 1994, 72:2203	
	CF	ZHANG, H.M., et al., "Rapid Communication: Polymerase Chain Reaction-Restriction Fragment Length Polymorphism Analysis of the Bovine Somatotropin Gene", J. Anim. Sci. 1993, 71:2276	
	CG	ZHANG, H.M., et al., "Rapid Communication: Diallelic Single-Stranded Conformational Polymorphism Detected in the Bovine Prolactin Gene", J. Anim. Sci. 1994, 72:256	
	CH	AX, R.L., et al. "New developments in managing the bull: Factors Affecting Calf Corp: Biotechnology of Reproduction", CRC Press, 2001.	
	CI	DENISE, S.K., et al., "Genetic Technologies: Factors Affecting Calf Corp: Biotechnology of Reproduction", CRC Press, 2002	
	CJ	DENISE, R.S.K., et al., "Genetic and environmental aspects of the growth curve parameters in beef cows", J. Anim. Sci. 1985, 61:1431	
	CK	DENISE, R.S.K., et al., "Relationships among postweaning weights and gains of cattle raised under range and gain test environments", J. Anim. Sci. 1987, 64:969	
	CL	DENISE, R.S.K., et al., "Relationships among udder shape, udder capacity, cow longevity and calf weights", J. Anim. Sci. 1987, 65:366	
	CM	TANIDA, H., et al., "Genetic aspects of longevity in Angus and Hereford cows", J. Anim. Sci. 1988, 66:640	

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Art Unit	1637
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**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	DA	ZHANG, H.M., et al., "Nucleotide sequence determination of a bovine somatotropin allele", An. Genetics., 1992, 23:578	
	DB	LAGZIEL, A., et al., "Geographic and breed distribution of an MspI PCR-RFLP in the bovine growth hormone (bGH) gene", Anim. Genet. 2000, 31:210-213	
	DC	DENISE, S.K., et al., "The use of genetic markers in dairy and beef cattle improvement: Proc. Southwest Nutr. And Manage", Conf., Tempe, AZ 1993	
	DD	DENISE, S.K., et al., "Genetic screening for disease and production: Proc. Western Canadian Dairy Sem.", Red Deer, Alberta 1993	
	DE	DENISE, S.K., et al., "Incorporation of molecular genetic information into genetic prediction models: Proc. Genetic Prediction Workshop, Beef Improvement Federation", Kansas City, Jan. 1994	
	DF	DENISE, S.K., et al., "Gene mapping, marker-assisted selection, QTLs-Boiling it down to cowboy lingo. Proc. Beef Improvement Federation Annual Meeting", Des Moines, Iowa, June 1994	
	DG	DENISE, S.K., "Biotechnology and Animal Breeding: What can we use today and what does the future hold?" Great Plains Beef Cattle Handbook 1994	

Examiner Signature	/David Thomas/	Date Considered	08/23/2008
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